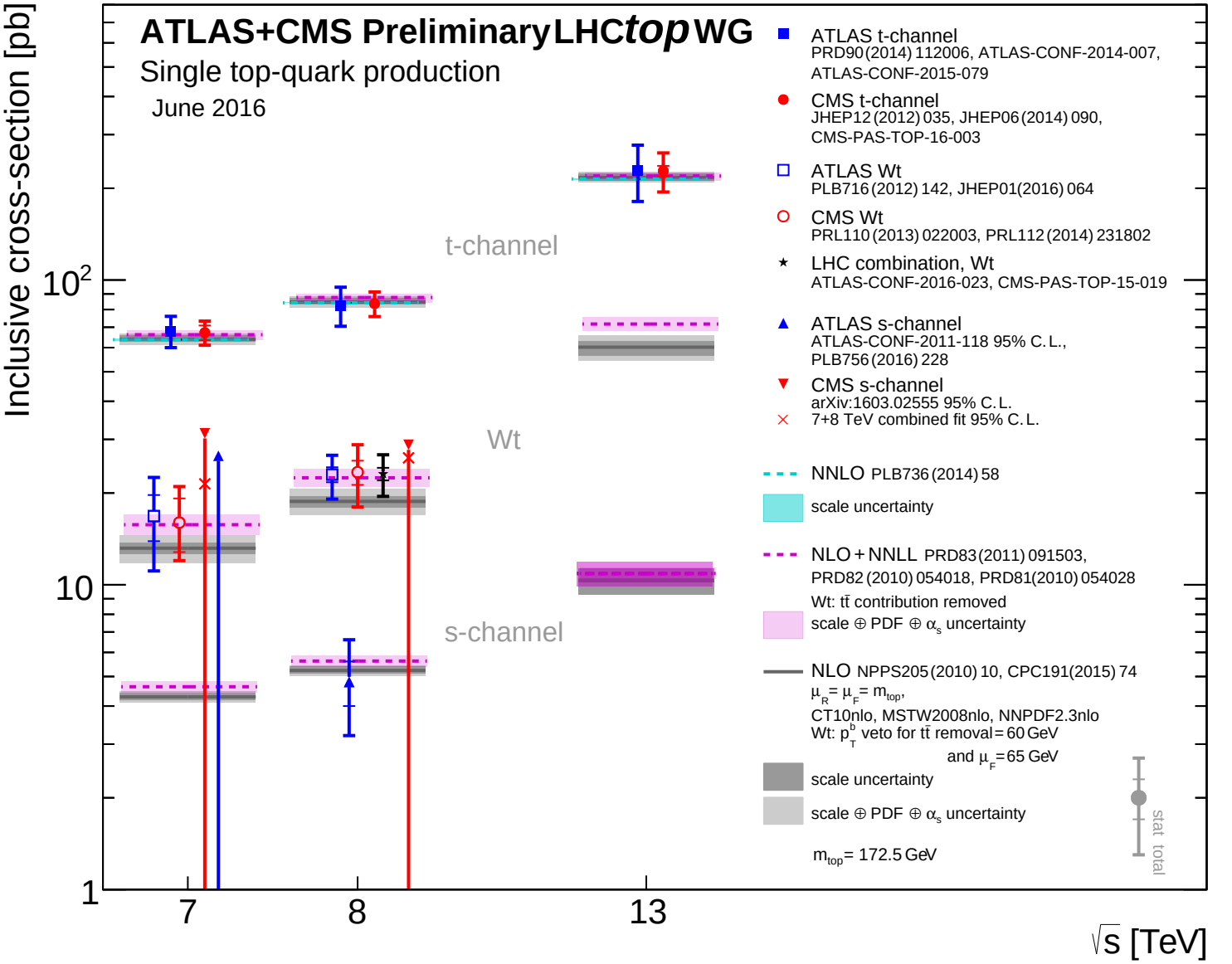
ATLAS+CMS Preliminary LHCtopWG
Single top-quark production
June 2016
Inclusive cross-section [pb]
t-channel
Wt
s-channel
ATLAS t-channel
PRD90 (2014) 112006, ATLAS-CONF-2014-007, ATLAS-CONF-2015-079
CMS t-channel
JHEP12 (2012) 035, JHEP06 (2014) 090, CMS-PAS-TOP-16-003
ATLAS Wt
PLB716 (2012) 142, JHEP01(2016) 064
CMS Wt
PRL110 (2013) 022003, PRL112 (2014) 231802
LHC combination, Wt
ATLAS-CONF-2016-023, CMS-PAS-TOP-15-019
ATLAS s-channel
ATLAS-CONF-2011-118 95% C.L., PLB756 (2016) 228
CMS s-channel
arXiv:1603.02555 95% C.L.
7+8 TeV combined fit 95% C.L.
NNLO PLB736 (2014) 58
scale uncertainty
NLO + NNLL PRD83 (2011) 091503, PRD82 (2010) 054018, PRD81(2010) 054028
Wt: tt̄ contribution removed
scale ⊕ PDF ⊕ αs uncertainty
NLO NPPS205 (2010) 10, CPC191(2015) 74
μR = μF = mtop,
CT10nlo, MSTW2008nlo, NNPDF2.3nlo
Wt: pTb veto for tt̄ removal = 60 GeV and μF = 65 GeV
scale uncertainty
scale ⊕ PDF ⊕ αs uncertainty
mtop = 172.5 GeV
stat
total
√s [TeV]